City of San Marcos

Edwards Aquifer Protection Regulations

San Marcos City Code Chapter 94, Article 6

DIVISION 1. GENERALLY

Sec. 94.501. Findings and purposes.

(a) The city council makes the following findings:

(1) The Edwards Aquifer is an invaluable and irreplaceable resource, a major source of a clean drinking water supply for over two million people in South-Central Texas, including residents of the city.

(2) The Edwards Aquifer is replenished by rainwater that falls over the recharge zone and transition zone, and by surface water that flows into the recharge zone from the transition zone and from the contributing zone, an area located generally northwest of the recharge zone.

(3) The Edwards Aquifer is the source of flow for the San Marcos springs in the heart of the city.

(4) The San Marcos Springs, San Marcos River, and areas of the Edwards Aquifer near the San Marcos Springs comprise the habitat of a number of endangered species. Some of these species are found nowhere else on earth.

(5) Sustained and clean springflows from the Edwards Aquifer in the San Marcos springs and San Marcos River support a wide variety of economic, environmental and recreational interests.

(6) The recharge zone is the most fragile area of the Edwards Aquifer system due to the potential for pollutants to enter the aquifer where the karst geology is exposed at the surface of the ground.

(7) Indiscriminate and improperly planned land development over the recharge zone and the transition zone poses a potential threat to the Edwards Aquifer by disturbing the natural ecosystem and allowing pollutants to enter the aquifer.

(8) Indiscriminate and improperly planned land development activities over the recharge zone and the transition zone pose a potential threat to the Edwards Aquifer by covering and sealing recharge features, thereby reducing the total amount of water that is able to replenish and recharge the Edwards Aquifer.

(9) The area of the recharge zone near the city is particularly important to protect, because studies indicate that the aquifer in the San Marcos area is more significantly influenced

by local recharge than other areas of the aquifer near springs, and because flow rates in the aquifer are higher in the San Marcos area than in other areas of the aquifer.

(10) Most of the major recharge features in the Edwards Aquifer recharge zone are found in or near rivers, creeks, streams, channels or other drainageways.

(11) The City of San Marcos, as the trustee of public health, safety and welfare, finds that it is in the best interest of its citizens to carefully regulate land development activities over the recharge zone and the transition zone for the protection of the Edwards Aquifer.

(12) The City of San Marcos finds that regulation of land development activities over the recharge zone and the transition zone will help preserve the Edwards Aquifer for existing and future generations of citizens of the city and its environs.

(13) The adoption of this article is taken in response to a very real and substantial threat to the public health and safety of all persons who rely on the Edwards Aquifer in the vicinity of the city as a supply of drinking water, including persons served by the water systems of the city, Southwest Texas State University, Crystal Clear Water Supply Corporation, ~~and~~ Maxwell Water Supply Corporation, and other public water supply systems, and persons served by private wells serving individual tracts of land.

(14) The adoption of this article is designed to significantly advance the health and safety purposes described in subdivision (13) of this subsection.

(15) The regulations contained in this article are not intended to impose a greater burden than is necessary to achieve the health and safety purposes described in subdivision (13) of this subsection.

(16) The adoption of this article, and the repeal of former section 110.092 of this Code, are intended as a modification of previous regulations of the city contained in former section 110.092 of this Code.

(b) This article has the following purposes:

(1) To prevent the degrading of the quality of groundwater in the Edwards Aquifer.

(2) To regulate activities having the potential for polluting the Edwards Aquifer, and in surface streams that are hydrologically connected to the Edwards Aquifer.

(3) To protect areas adjacent to sensitive recharge features and along natural drainage ways where recharge potential is highest.

(4) To protect the city, other water suppliers, and other owners of Edwards Aquifer wells, all of which own interests in the aquifer, by preventing decreases in the quantity of recharge to the aquifer.

(5) To protect persons and property from damaging floodwaters in floodway and floodplain areas.

Sec. 94.502. Authority.

(a) This article is adopted under authority of the following:

(1) V.T.C.A. Local Government Code Chapter 212, as amended; ~~, and~~

(2) ~~t~~ The TNRCC Edwards Aquifer rules;

(3) V.T.C.A Water Code, Chapter 26, as amended; and

(4) V.T.C.A. Local Government Code, Section 401.002, as amended.

(b) Where a provision of this article conflicts with a provision of the TNRCC Edwards Aquifer rules, or any other provision of this Code, the stricter provision, with respect to the effects imposed on a development, will govern.

Sec. 94.503. Definitions.

In this article:

Best management practices or *BMPs* means activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of the Edwards Aquifer and hydrologically connected surface streams. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs are described in the TNRCC BMP Guidance Manual.

Buffer zone means an area of land adjacent to a water quality zone for a minor waterway, intermediate waterway or major waterway, that serves a function of filtering contaminants from water that drains across the area.

Commence construction or *commencing construction* means the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction or development.

Commission means the city planning and zoning commission.

Development means any construction-related activity, other than an exempt activity described in section 94.504(c), having the potential for polluting the aquifer or surface streams that are hydrologically connected to the aquifer. *Development* includes, but is not limited to:

(1) construction of buildings, utility stations, utility lines, sewage lift stations, roads, highways, or railroads; or

(2) clearing, excavation or any other activities that alter or disturb the existing topographic, geologic, or recharge characteristics of a site.

Development application means an application submitted to the city for approval of a site plan, subdivision master plan, preliminary plat, minor plat, final plat, replat, construction plans, site development permit, building permit, septic tank permit or any other application for approval of a permit required by the city within the city limits or the extraterritorial jurisdiction of the City prior to initiation, continuation or completion of development.

Edwards Aquifer or *aquifer* means the portion of an arcuate belt of porous, waterbearing, predominantly carbonate rocks known as the Edwards (Balcones Fault Zone) Aquifer trending from southwest to northeast in Hays and adjacent counties.

Engineering director means the director of the city Environment and Engineering Department.

Excavation means any digging, trenching, scraping or other activity that disturbs natural soil or rock to a depth of two feet or more, other than soil disturbance incidental to the removal of trees or vegetation.

Floodway means the channel of a river, creek, stream or other drainageway, and the adjacent land areas that are reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Unless otherwise approved by the engineering director, the area of a *floodway* will be as depicted on official maps of the Federal Emergency Management Agency, subject to site-specific interpretation in a manner approved by the engineering director.

Geologic assessment means a report prepared by a qualified geologist describing site-specific geology.

Geologic feature means a feature including, but not limited to, closed depressions, sinkholes, caves, faults, fractures, bedding planes, interconnected vugs, reef deposits, and springs.

Holder means the person who applied for and obtained approval of an aquifer protection plan for a development in the recharge zone, or the successor-in-interest of such person.

Hydrologist means a person who has received a baccalaureate or graduate degree in hydrology from an accredited university and has training and experience in surface water hydrology.

Impervious cover means impermeable surfaces, such as pavement or rooftops, which prevent the infiltration of water into the soil and bedrock.

Intermediate waterway means any river, creek, stream, channel, or other drainageway that drains a watershed of at least 250 acres and no more than 1,000 acres.

Major recharge feature means a sensitive geologic feature or manmade feature that, because of its characteristics and setting, is likely to cause a significant quantity of direct recharge of surface water to the Edwards Aquifer, and has a potential recharge rating of more than 20 points on a geologic assessment prepared to TNRCC standards by a qualified geologist.

Major waterway means any river, creek, stream, channel, or other drainageway that drains a watershed of 1,000 acres or more.

Manmade feature means a feature, including but not limited to, closed depressions, wells, borings and excavations.

Minor recharge feature means a sensitive geologic feature or manmade feature that, because of its characteristics and setting, may cause small quantities of surface water to recharge the Edwards Aquifer, and has a potential recharge rating of less than 15 points on a geologic assessment prepared to TNRCC standards by a qualified geologist.

Minor waterway means any river, creek, stream, channel or other drainageway that drains a watershed of at least 50 acres and no more than 250 acres.

Moderate recharge feature means a sensitive geologic feature or manmade feature that, because of its characteristics and setting, is likely to cause small quantities of surface water to directly recharge the Edwards Aquifer, and has a potential recharge rating of 15 to 20 points, inclusive, on a geologic assessment prepared to TNRCC standards by a qualified geologist.

Natural drainage means the characteristics of surface drainage where no disturbance of natural features, soils, or vegetation has occurred.

100-year floodplain means an area of land that is subject to a one per cent or greater chance of flooding in any given year, based on developed conditions existing as of the date a development application is accepted for filing, and not based on projected or anticipated future build-out for a watershed.

Permanent BMPs means best management practices used to prevent and control pollution from development after construction is completed.

Planning director means the director of the city planning and development services department.

Pollution or *polluting* means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of any water that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to public health, safety or welfare, or impairs the usefulness of the public enjoyment of the water for any lawful or reasonable purpose.

Qualified geologist means a person who has received a baccalaureate or graduate degree in the natural science of geology from an accredited university and has training and experience in groundwater hydrology or Edwards Limestone karst geology, or has demonstrated such

qualifications by registration or licensing through ~~by~~ a state or ~~,~~ professional organization that certifies their background of training and experience in groundwater hydrology or Edwards Limestone karst geology.

Recharge zone means the area where the stratigraphic units constituting the Edwards Aquifer outcrop, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other geologic features and manmade features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as such on official TNRCC maps, which are incorporated in this article by reference. The recharge zone includes all areas defined as water quality zones in this article.

Sensitive feature means a permeable geologic feature or manmade feature located on the recharge zone or transition zone where:

(1) a potential for hydrologic connection between the surface and the aquifer exists;

(2) rapid infiltration to the subsurface may occur; and

(3) the feature has a sensitivity rating, according to TNRCC rating criteria, of 25 points or more on a geologic assessment prepared to TNRCC standards by a qualified geologist.

Each s*ensitive feature* is categorized as either a minor recharge feature, a moderate recharge feature, or a major recharge feature based on its potential for recharge into the aquifer.

Sensitive feature protection zone means the area surrounding sensitive features where no development or disturbance of native vegetation is allowed.

Single family home means a building designed to be occupied as a residence by one family, and located on a lot or building site that is unoccupied by any other dwelling unit or principal structure. *Single-family home* includes both site-built homes and manufactured homes.

Site means a tract of property that is the subject of a development application.

Temporary BMPs means best management practices used to prevent and control pollution from development during construction.

TNRCC means the Texas Natural Resource Conservation Commission.

TNRCC Edwards Aquifer rules means the TNRCC rules for the Edwards Aquifer, 30 TAC Chapter 213, Subchapter A, as amended.

TNRCC BMP guidance manual means TNRCC document RG-348, “Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices”.

Transition zone means the area adjoining the recharge zone where faults, fractures, or other geologic features or manmade features would present a possible avenue for recharge of surface water to the Edwards Aquifer. The transition zone is identified as such on official TNRCC maps.

Upland zone means any area located outside of a ~~critical~~ water quality zone and a buffer zone.

Water quality zone means an area of land along a minor waterway, intermediate waterway or major waterway in which development is prohibited or limited.

Terms not defined in this section which are defined in chapter 110 will have the meanings assigned in that chapter, unless the context clearly indicates otherwise.

Sec. 94.504. Applicability; exemptions.

(a) This article applies to any development on land in the recharge zone or in the transition zone within the city limits or within the city's extraterritorial jurisdiction as defined under state law.

(b) If a part of a site on which a development is to be conducted is in the recharge zone according to official TNRCC maps, the exact boundaries of the recharge zone on the site will be determined by an on-site inspection performed by a qualified geologist.

(c) The following activities are exempt from the requirement for an aquifer protection plan under this article:

(1) clearing of vegetation that does not involve soil disturbance or result in soil erosion, including clearing needed for surveying and site assessment activities;

(2) the construction or expansion of one single family home, or one or more accessory structures on a lot legally platted before March 1, 2000, or on an unsubdivided tract of land at least two acres in size, for which a legal description was contained in a deed recorded before March 1, 2000, so long as the total of impervious cover on the lot or tract does not exceed the applicable limitation in section 94.524;

(3) the installation or maintenance of utility lines, other than sewage lift stations, by a governmental entity;

(4) agricultural activities, or mowing, tree trimming, gardening, or other similar landscape maintenance activities;

(5) maintenance of existing structures or improvements that does not involve additional site disturbance, such as, but not limited to:

(A) the resurfacing of existing paved roads, parking lots, sidewalks, or other development-related impervious surfaces; and

(B) the building of fences, landscaping, or other similar activities in which there is little or no potential for contaminating groundwater, and there is little or no change to the existing topographic, geologic, or sensitive features.

Sec. 94.505 – 94.509. Reserved.

DIVISION 2. ADMINISTRATION

Sec. 94.510. Aquifer protection plan – required for developments in recharge zone and transition zone.

(a) Plan required prior to development. Every development application for a development in the recharge zone or the transition zone must be accompanied by an aquifer protection plan demonstrating compliance with the requirements of this article. The purposes of the aquifer protection plan are to determine the extent to which the requirements of this article apply to the development, and to serve as the basis for applying the standards of this article to the development proposed in the application.

(1) If an aquifer protection plan already has been approved for the development and the development application is consistent with the approved plan, the applicant may submit the approved aquifer protection plan in fulfillment of this section.

(2) A development application for which an aquifer protection plan is required will not be deemed to be filed until the applicant has prepared and submitted a complete aquifer protection plan in the manner described in section 94.511, and the plan has been accepted as complete by the planning director. Acceptance of any development application without the accompanying aquifer protection plan will be deemed to be null and void and will be grounds for denial of the development application. For developments located in whole or in part in the recharge zone, the plan must be accompanied by a geologic assessment of the development site and a technical report.

(b) Exemption determination. In lieu of submitting an aquifer protection plan, a person submitting a development application may request a determination from the planning director that the development is exempt from the requirement for filing an aquifer protection plan under section 94.504(c) by submitting a completed exemption request form. A development application for which an exemption is requested will not be deemed to be accepted for filing until the planning director has determined whether the proposed development is exempt from the requirements of this article.

(1) If the planning director determines that the development is exempt, the director will notify the applicant in writing and authorize the filing of the development application if the application is otherwise complete.

(2) If the planning director determines that the development is not exempt, the director will inform the applicant in writing and require that an aquifer protection plan be prepared prior to acceptance of the application for filing.

(3) The request for exemption must be accompanied by the review fee set by the city council, and must include all of the following information:

(A) Name, address, and telephone number of the property owner and the applicant.

(B) A brief description of the development for which the application is submitted.

(C) A scale drawing depicting the boundaries of the site, the location of existing improvements on the site, and the location of the proposed development activities on the site.

(D) Information establishing the basis for the exemption.

Sec. 94.511. Aquifer protection plan--Contents.

(a) Contents--recharge zone.

(1) An aquifer protection plan for a development in the recharge zone must contain the following elements:

(A) Name and brief description of the development, subdivision, or facility for which the plan is submitted.

(B) Name, address, and telephone number of the property owner, the applicant and any other person signing the application.

(C) Information needed to determine the appropriate fee for filing and review of the plan.

(D) Plans, submitted on 24" by 36" sheets, that include the following:

1. Site boundaries, including all bearings and distances, and any relevant recharge zone boundaries clearly labeled.

2. Topography and drainage plan of the entire site using the best available contour interval information, but with contour intervals no greater than ten feet.

3. The centerline of all rivers, creeks, streams or drainageways within or bordering the site that drain an area greater than 50 acres.

4. The location of all floodways and 100-year floodplains on the site, as determined in accordance with the standards in section 94.527.

5. The location of all sensitive features on the site as identified in the geologic assessment.

6. The location and dimensions of all water quality zones on the site, if applicable.

7. An aerial photograph that shows all areas of tree canopy on the property.

8. The location and dimensions of all existing improvements on the property including all existing impervious cover such as driveways, parking areas, buildings and similar structures.

9. For developments other than single family residential developments, the location and dimensions of all proposed improvements on the property, including all proposed impervious cover such as streets, driveways, parking areas, buildings and similar structures.

10. Identification of all areas where soils will be disturbed, and all areas where soils will not be disturbed.

11. A table of summary information that includes the following, with impervious cover designated by type as roadway, driveway, structure/roof, or other:

A. The total acreage of the site.

B. The area and percentage of existing impervious cover, by type.

C. The area and percentage of proposed impervious cover, by type.

D. The total area and percentage of existing and proposed impervious cover, by type.

12. All standard notes required by the city for compliance with applicable regulations.

13. Name and address of the owner of the property.

14. Name and address of the architect, engineer or surveyor who prepared the plans.

15. Date of preparation.

16. North arrow.

17. Scale (must be drawn at an appropriate standard engineering scale and must be of sufficient size to clearly show the location and/or dimensions of all required information listed above).

18. Vicinity map indicating the location of the site in relationship to the official TNRCC maps of the recharge and transition zones.

(2) If a development application is for approval of a site development permit or subdivision construction plans, the following information must be shown on the aquifer protection plan or on the construction plans for the development:

(A) The drainage patterns and approximate slopes anticipated after major grading activities, as determined by a Texas-licensed engineer.

(B) The location and type of all proposed temporary BMPs.

(C) The location, dimensions, and calculations of total suspended solids removal rate for all proposed permanent BMPs, as determined by a Texas-licensed engineer or a hydrologist.

(D) If the development is a single family residential development, the location and dimensions of all proposed improvements to be constructed on the property in connection with initial development of the subdivision, including all streets and sidewalks and other impervious cover.

(3) If the development application for which the aquifer protection plan is prepared already includes one or more of these required elements, the information need not be repeated on the aquifer protection plan, if the planning director determines that the omission of the information does not prevent meaningful evaluation of the plan under the approval criteria.

(b) Contents--transition zone.

(1) An aquifer protection plan for a development in the transition zone must contain the following elements:

(A) Name and brief description of the development, subdivision, or facility for which the plan is submitted.

(B) Name, address, and telephone number of the property owner, the applicant and any other person signing the application.

(C) Information needed to determine the appropriate fee for filing and review of the plan.

(D) Plans, submitted on 24” by 36” sheets, that include the following:

1. Site boundaries including all bearings and distances, with any relevant transition and recharge zone boundaries clearly labeled.

2. Topography and drainage plan of the entire site using the best available contour interval information, but with contour intervals no greater than ten feet.

3. Vicinity map indicating the location of the site in relationship to the official TNRCC maps of the recharge and transition zones.

4. The location and dimensions of all proposed improvements on the property.

5. Identification of all areas where excavation will occur in the course of construction of the development. If no excavation is to occur on the site, the plans will clearly state this.

6. The conceptual location and type of all proposed temporary BMPs.

(2) If the development application is for approval of a site development permit or subdivision construction plans, the conceptual location and type of all proposed temporary BMPs must be shown on the aquifer protection plan or on the construction plans for the development.

(c) Short form plan. For development applications proposing solely the construction or expansion of a single-family home on a lot legally platted in the recharge zone on or after March 1, 2000, the applicant may submit a short-form aquifer protection plan that contains only the following information:

(1) A copy of the approved aquifer protection plan for the subdivision plat or other approved development application that allocates impervious cover to lots in the subdivision in which the home is to be constructed or expanded. For lots created by the filing of a subdivision plat after March 1, 2000 but before October 1, 2001, a subdivision plat or other form of development application that allocates impervious cover to lots in the subdivision will be considered the aquifer protection plan for purposes of this requirement.

(2) A table of summary information that includes the following, with impervious cover designated by type as roadway, driveway, structure/roof, or other:

(A) The total acreage of the site.

(B) The area and percentage of existing impervious cover, by type.

(C) The area and percentage of proposed impervious cover, by type.

(D) The total area and percentage of existing and proposed impervious cover, by type.

(d) Exclusion of BMP information. If an aquifer protection plan shows less than 15% impervious cover for a site, the aquifer protection plan may eliminate information pertaining to the provision of permanent BMPs.

(e) Geologic assessment.

(1) All aquifer protection plans for developments in the recharge zone, other than short-form plans, must be accompanied by a geologic assessment of the entire site prepared by a qualified geologist. The assessment must be based on 50 foot transects across the site, and must contain all information required for geologic assessments under the TNRCC Edwards Aquifer rules. The assessment must identify all sensitive features on the site, and for each sensitive feature, must state whether it is a major recharge feature, moderate recharge feature, or minor recharge feature.

(2) As provided for under Section 94.529, an aquifer protection plan for a development in the recharge zone may be accompanied by an enhanced geologic assessment of the site prepared by a qualified geologist. The enhanced assessment is subject to review and approval by the planning director. The enhanced assessment must meet the requirements for assessments under (e)(1) above, and in addition, must meet the following:

(A) All caves that can be entered must be entered and mapped to establish the footprint of the cave, and to identify related surface hydrogeologic features (drainage areas, sinkholes, fractures, etc.) and cultural features (existing or proposed roads, buildings, utilities, etc.). Hydrogeologic features within each cave must be mapped or noted and interpreted to delineate the drainage area for the cave, which includes surface drainage into the cave's entrance(s), plus surface drainage into fractures, sinkholes, streambeds, or other features which appear to contribute recharge into the cave in areas beyond the cave entrance. Excavations must be conducted as part of the effort to fully map the caves when necessary for study and mapping of otherwise inaccessible parts of the caves. Where excavation may be unsafe, such as a passage that ends in collapse and likely continues on the opposite side of the collapse, geophysical methods should be employed to determine if and where the cave continues. The geophysical methods must be of a type that has proven accurate and appropriate for the depth, size, and geologic setting of the cave. The geophysical methods should not be used to replace mapping of the cave, but to supplement them and identify areas where excavation or drilling may find the continuation of the cave to allow its further mapping and study.

(B) Recharge features that cannot be entered must be excavated to more fully evaluate the hydrogeologic significance of the features, and to determine if they lead to caves. Excavations may be conducted by hand, explosive, and/or mechanized means as appropriate. Excavations will be considered complete if a cave, or bedrock with no openings, or a compact clay at least one foot thick throughout the feature's floors and walls, is found. Where fractures or other openings in the bedrock extend indefinite distances with no fill material or loose fill material, and hydrogeologic indicators suggest the feature may lead to a cave, then geophysical methods should be employed to determine if and where a cave is present to guide further excavation and study under (e)(2)(A) above.

(f) Technical report. If a development application is for approval of a site development permit or subdivision construction plans for a development in the recharge zone, the application must be accompanied by a technical report that meets all requirements for technical reports under the

TNRCC Edwards Aquifer rules, including but not limited to a description of all temporary and permanent BMPs to be used.

(g) Mitigation plan. As provided for under Section 94.528, an aquifer protection plan for a development in the recharge zone may be accompanied by a mitigation plan for improvements on the site that are proposed within a buffer zone. The mitigation plan must be prepared by a Texas-licensed engineer, or by such an engineer and a Texas-registered landscape architect, and must describe temporary and permanent mitigation measures to be installed and maintained at the site.

(h) Submission of aquifer protection plans.

(1) An original and ten copies of the aquifer protection plan must be submitted to the planning director, accompanied by the fee set by the city council, which is nonrefundable.

(2) Only property owners, their authorized agents, or persons having the right to possess and control the property which is the subject of the aquifer protection plan may submit the application for review and approval.

(i) Signatories to aquifer protection plans. Aquifer protection plans must be signed as follows:

(1) For a corporation, a principal executive officer (president, vice-president, or a duly authorized representative) must sign the plan. The planning director may require a representative to submit written proof of the authorization.

(2) For a partnership, a general partner must sign the plan.

(3) For a political entity such as a municipality, state, federal or other public agency, either a principal executive officer or a duly authorized representative must sign the plan. The planning director may require a representative to submit written proof of the authorization.

(4) For an individual or sole proprietorship, the individual or sole proprietor must sign the plan.

(j) The applicant must submit to the planning director a copy of all certifications related to the project submitted by the applicant to the TNRCC under the TNRCC Edwards Aquifer Rules.

Sec. 94.512 Aquifer protection plan—Procedures; duration of approval.

(a) Action on plan. The aquifer protection plan will be processed and action will be taken on the plan in conjunction with the development application for which it was prepared.

(1) The planning director will take initial action on all aquifer protection plans in which the director or another administrative official is the final decision-maker on the development application for which the plan was prepared, subject to appeal as provided in section 94.513.

(2) In all other circumstances, final action on the aquifer protection plan will be taken upon the planning director's recommendation by the commission or the city council, whichever entity makes the final decision on the development application.

(b) Planning director's decision and report.

(1) The aquifer protection plan will be forwarded to the planning director, together with the development application for which it was prepared, for purposes of determining compliance with these regulations.

(2) The planning director will first determine whether the aquifer protection plan contains all required elements and accompanying assessments and reports. If the plan is not complete, it will be returned to the applicant and the development application will not be accepted for filing until a plan containing all the requirements has been submitted with the application.

(3) In circumstances where the planning director is the initial decision-maker on the aquifer protection plan, the director will determine whether the plan complies with the criteria in division 3 of this article, and approve, conditionally approve or deny the aquifer protection plan accordingly.

(A) In the event the planning director denies the aquifer protection plan, no further action will be taken on the development application pending appeal of the director's decision. If the director's decision is sustained on appeal, or if no appeal is taken, the development application will be denied pending submission of an aquifer protection plan meeting the criteria in division 3 of this article.

(B) In the event the planning director conditionally approves the aquifer protection plan, the conditions will be included among any conditions for approval of the development application for which the aquifer protection plan was prepared, unless the conditions are removed or modified on appeal from the director's decision.

(c) For development applications that are finally decided by the commission or the city council, the decision-maker, after considering the planning director's report, will determine whether the aquifer protection plan complies with this article, in conjunction with its action on the development application. The commission or the city council, as applicable, may take one of the following actions:

(1) Approve the aquifer protection plan and take action on the development application in accordance with other regulations in this Code governing the application, subject to compliance with the aquifer protection plan;

(2) Disapprove the aquifer protection plan and deny the development application pending approval of a complying plan; or

(3) Approve the aquifer protection plan with conditions, and include among the conditions of approval of the development application compliance with the conditions applied to the aquifer protection plan.

(d) Duration of aquifer protection plan approval. An approval for an aquifer protection plan remains in effect during the time the development application for which the aquifer protection plan was prepared is in effect. In the event the development application for which the aquifer protection plan was prepared is denied, or subsequently expires or is revoked, the aquifer protection plan for that development application will be null and void upon occurrence of that event.

(e) Conditions of development application. The approval or conditional approval of an aquifer protection plan will constitute conditions of approval of the development application for which the plan was prepared, and the development application must be consistent with the aquifer protection plan.

(1) Subsequent development applications for the project for which the aquifer protection plan was prepared must be consistent with the plan, unless a revised aquifer protection plan is prepared and approved for a subsequent application.

(2) The following elements must be incorporated within a subdivision plat, site plan or other graphic depiction of the project for which the development application was filed consistent with the approved or conditionally approved aquifer protection plan:

(A) Demarcation of all water quality zones and buffer zones for the property subject to the development application;

(B) Identification of all sensitive features and demarcation of all sensitive feature protection zones for the property subject to the development application;

(C) Impervious cover allocated to the property subject to the development application, or to be allocated among lots or tracts into which the property is to be divided; and

(D) Any applicable transfer of density or impervious cover authorized under the clustering provisions in section 94.530.

Sec. 94.513 Appeals and variances—Commission.

(a) Appeal of planning director's decision. If the planning director denies or conditionally approves an aquifer protection plan, the applicant may appeal the decision to the commission by filing a written request with the planning director within ten days of the date of the director's decision. The appeal request must contain a statement of the basis for the appeal, and must be accompanied by technical information, if necessary, in support of the appeal. Upon receipt of a timely, complete appeal request, the planning director will place the appeal on the next available meeting agenda of the commission, in accordance with the planning director's schedule of submission deadlines for commission meetings. The commission will consider the

appeal, and will either sustain, modify or reverse the planning director's decision. The commission may impose conditions on its approval of an aquifer protection plan based on the recommendation of the engineering director, a qualified geologist, or a Texas-licensed engineer.

(b) Variances.

(1) The commission may authorize a variance from the standards of this article. In granting a variance, the commission may prescribe conditions that further the purposes of this article. In making the findings required in this subsection, the commission will take into account the nature of the proposed use of the land involved, existing uses of land in the vicinity, alternatives that will achieve the purpose and intent of this article, and the probable effect of the variance upon the quality of water in the aquifer. No variance will be granted unless the commission approves the variance by a vote of three-fourths of the members present, and makes all of the following findings based upon evidence presented to it:

(A) There are unique conditions affecting the land involved that are not present or applicable to other property generally, such as terrain, floodplain, geologic, soil or tree cover conditions or other physical limitations, and these conditions cause extraordinary hardship in achieving strict compliance with this article.

(B) Financial hardship is not the sole or primary basis for the variance request.

(C) The granting of the variance will not be detrimental to the public health, safety or welfare or injurious to other property in the area, and will not result in violation of the water quality standards contained in the TNRCC Edwards Aquifer rules.

(D) The granting of the variance will not have the effect of preventing the orderly development of other land in the area in accordance with this article.

(2) A completed application for a variance must be submitted by the applicant to the planning director on or before the submission deadline set by the planning director for a commission meeting, unless the commission finds good cause for accepting an application after that time. The applicant must provide in the application the factual basis for the findings required to be made by the commission under subdivision (1) above.

(3) The findings of the commission, together with the specific facts upon which the findings are based, will be incorporated into the official minutes of the commission meeting at which a variance is granted.

(c) Waiver. An appeal from the director's decision on an aquifer protection plan or request for variance from the requirements of this ordinance pursuant to this section must be accompanied by an unconditional waiver of any claim that the development application has not been processed in accordance with any time limits otherwise established by law.

Sec. 94.514 Petition for relief.

(a) Right to petition. An owner of land or applicant for development who is aggrieved by application of the standards of this article may petition for relief to the city council. The petition must be submitted within ten days of any final decision rendered by the planning director or the commission on the aquifer protection plan. The petition must include or be accompanied by all of the following:

(1) The development application.

(2) The aquifer protection plan submitted by the petitioner.

(3) A copy of the planning director's report on the plan.

(4) The final decision rendered on the aquifer protection plan by the planning director or the commission.

(5) A statement of the grounds for the petition. This statement must include an allegation that the application of the standards of this article deprives the petitioner of a vested property right or of all economically viable use of the petitioner's land, or, in the case of land located in the city=s extraterritorial jurisdiction, has resulted in devaluation in the fair market value of the land by at least 25%.

(6) An unconditional waiver of any claim that the development application has not been processed in accordance with any time limits otherwise established by law.

(7) In the event the petition alleges that the application of the standards has resulted in at least a 25% devaluation of the property, the petition must also be accompanied by a statement of the petitioner=s intent to submit an appraisal of the property by a qualified professional comparing the market value of the property as if the standards of this article were not in effect with the market value of the property with the standards in effect. This appraisal must utilize sales comparison or other reliable method of determining fair market value, and the completed appraisal must be submitted prior to the Council=s consideration of the petition.

(b) Criteria. In deciding whether to grant relief to the petitioner, the city council will consider whether there is any evidence from which it can reasonably conclude that the application of all or a part of the standards in this article will deprive the petitioner of a vested property right or of all economically viable use of the land, or for land in the extraterritorial jurisdiction, that the application of the standards has resulted in at least a 25% devaluation of the property, based upon the following factors:

(1) The nature and extent of prior applications filed or approved for the property;

(2) Whether any prior vested rights determinations have been made with respect to the property subject to the aquifer protection plan;

(3) Whether any prior approvals of development applications granted by the city for the property have been terminated in accordance with law;

(4) The nature and intensity of the uses allowed following application of the standards in this article to the project, in comparison with the nature and intensity of the uses allowed prior to the application of the standards;

(5) Whether the standards of this article when applied allow an economically viable use of the land;

(6) For petitions in which it is alleged that there has been a devaluation of property located in the extraterritorial jurisdiction, whether the adoption or application of standards in this article is the producing cause of any devaluation of the property;

(7) The total expenditures made in connection with the proposed development in reasonable reliance on prior regulations;

(8) Any fees reasonably paid in connection with the proposed development;

(9) Any representations made by the city concerning the project and reasonably relied upon to the detriment of the petitioner;

(10) The extent to which the standards in this article already would have applied to the property under prior regulations of the city or regulations of any other regulatory agency;

(11) The extent to which the owner of the property had actual or constructive notice of regulations or proposed changes in regulations relating to development over the Edwards Aquifer;

(12) Whether development of the land in accordance with the application and in the absence of applying the standards in this article will constitute a public or private nuisance; and

(13) The extent to which development of the land in accordance with the application and in the absence of applying the standards in this article is materially and substantially detrimental to the public health and safety.

(d) Action by city council. The city council may take either of the following actions on a petition submitted under this section:

(1) Deny the petition for relief, and either uphold the decision of the planning director or the commission on the aquifer protection plan, or, if the council is the final decision-maker on the plan, require that an aquifer protection plan be prepared consistent with the standards in this article; or

(2) Grant the relief sought in the petition in whole or in part, reversing or modifying the decision of the planning director or the commission on the aquifer protection plan, and direct

that the development application be processed and evaluated in a manner consistent with such determination.

In granting relief under the petition, the city council, by a vote of two-thirds of its members present (but in no event fewer than a majority of the entire council), may waive or modify the standards applicable to the aquifer protection plan, or impose reasonable conditions on the development application, related to the aquifer protection plan, in order to implement the relief granted. The action taken by the Council under this section will not deprive the commission of its final approval authority over subdivision plats.

(e) Waiver of claims. The relief granted in response to a petition under this section will be deemed null and void, and all claims pertaining to vested rights, loss of economically viable use, or devaluation of land by 25% or more, will be deemed waived and forfeited, if any of the following events occurs:

(1) A complete application for approval of the development, consistent with the city council's determination on the petition, is not filed with the planning director within 30 days of the date of the determination; or

(2) The development application is subsequently denied for failure to comply with regulations governing the application; or

(3) Approval of the development application has expired or is revoked.

Sec. 94.515. Post-approval procedures.

(a) Excavations in recharge zone or transition zone.

(1) When a development in the recharge zone or transition zone includes any excavation, the person performing the development must either engage a qualified geologist to inspect the excavation, or notify the planning director to arrange for inspection of the excavation by city personnel. The inspection will be for the purpose of determining whether the excavation has uncovered any geologic or manmade feature that presents a possible avenue for recharge to the aquifer. The inspection will be made either upon completion of the excavation, if it is in a single, defined area, or in segments, if the excavation is linear, or is in multiple locations, or is accomplished over an extended period of time. The excavation may be temporarily backfilled before inspection, but inspection must occur with the full excavation uncovered before permanent backfilling is performed. If an inspection reveals that one or more such features has been uncovered, the person performing the development must:

(A) immediately notify the planning director;

(B) utilize temporary BMPs to prevent pollution from entering the aquifer through the features; and

(C) not perform any further work in the excavation until an application for an amendment to the approved aquifer protection plan, for a development in the recharge zone, or an application for approval of a short form aquifer protection plan, for a development in the transition zone, is submitted to and approved by the planning director.

(2) A short form aquifer protection plan under this section must include, at a minimum, the following information:

(A) Name, address, and telephone number of the property owner and the applicant.

(B) A brief description of the development for which the application is submitted.

(C) A scale drawing depicting the boundaries of the site, the location of the development on the site, the location of the relevant excavation, and the drainage patterns on the site in the vicinity of the excavation.

(D) A brief description of each feature uncovered by the excavation.

(3) Each application under this section must be accompanied by a geologic assessment of the features prepared by a qualified geologist, and by a fee set by the city council. The geologic assessment must include the geologist's recommendation for addressing the features, with reference to the nature of the excavation and any improvements proposed for placement in or near the excavation. The recommendation may include the use of temporary or permanent BMPs, or a change in the character or location of proposed improvements, or any other reasonable means of ensuring that the development or improvements will not result in pollution to the aquifer.

(4) The planning director will review each application under this section to determine whether the applicant may proceed to implement the geologist's recommendation for addressing the features. The planning director may require the applicant to submit additional information regarding the recommendation. The planning director will approve the application unless the director determines, in consultation with the engineering director, that the geologist's recommendation will not provide adequate protection against potential pollution of the aquifer. If the planning director denies an application, the applicant may submit a revised application that includes an alternative recommendation from a qualified geologist for addressing the features.

(5) If the planning director approves an application, the applicant may proceed with the development. The applicant must comply with and fully implement the geologist's recommendation for addressing the features.

(b) Discovery of sensitive feature in recharge zone or transition zone during construction.

(1) If a new sensitive feature, or any solution opening, cave, sinkhole, or similar feature, is encountered on a site in the recharge zone or transition zone during the construction process

for a development, or if a previously known sensitive feature is found in the course of construction to be larger or more extensive than previously noted in the geologic assessment of the site, the holder or the holder's designated representative must:

(A) immediately suspend all excavation and construction activities within 50 feet of the feature, measured horizontally;

(B) immediately notify the planning director of the discovery; and

(C) retain a qualified geologist to inspect the feature and make a recommendation to the planning director based on the relative sensitivity of the feature.

(2) The planning director may require, for a development in the recharge zone, that the holder submit an application to amend the approved aquifer protection plan to adequately protect a feature encountered or found under subsection (b)(1) above. For a development in the transition zone, the planning director may require that the developer submit an application for approval of a short form aquifer protection plan in accordance with the procedures in subsection (a) of this section. The planning director will review the available information and within two working days of notification of the feature, will decide whether to allow construction activities to resume near the feature pending the amendment or the short form aquifer protection plan, and if so, at what locations. The planning director will review and approve or deny a requested amendment or short form aquifer protection plan within five working days of submission of the geologic assessment and completed application for the feature. The holder may appeal a denial in accordance with section 94.513.

(c) Legal transfer of property. Upon legal transfer of property, the new owner is required to comply with all terms of the approved aquifer protection plan. If the new owner intends to commence any development on the site that is not covered by the approved aquifer protection plan, a new aquifer protection plan application that specifically addresses the new activity must be submitted to the planning director for review and approval prior to commencement of the activity.

(d) Modification of previously approved aquifer protection plans. The holder of any approved aquifer protection plan must notify the planning director in writing and obtain approval from the director prior to commencing any of the following:

(1) Any physical or operational modification of any water pollution abatement structure, including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures.

(2) Any change in the nature or character of the development from that covered by the approved aquifer protection plan, or any change that would significantly impact the ability of the approved plan to prevent pollution of the aquifer.

(3) Any development on land previously identified as undeveloped in the approved aquifer protection plan.

Sec. 94.516. Responsibility for compliance.

(a) The holder of the approved aquifer protection plan is responsible for compliance with this article and the terms and conditions of the approved plan, including the construction, operation and maintenance of all temporary BMPs and permanent BMPs shown on the approved plan or described in the accompanying technical report, through all phases of implementation. The holder is responsible for notifying all persons engaged in development activities on the site of the requirements of this article and the terms and conditions of the approved plan, including the construction, operation and maintenance of all temporary BMPs and permanent BMPs shown on the approved plan or described in the accompanying technical report. Any failure to comply with any provision of this article or any term or condition of the approval by any person engaged in work on a development on the site will constitute a violation of this section by the holder and will subject the holder to enforcement under section 94.518.

(b) Any person engaged in work on a development who violates any provision of this article or any term or condition of the approval of the aquifer protection plan for the development, including the construction, operation and maintenance of all temporary BMPs and permanent BMPs shown on the approved plan or described in the accompanying technical report, violates this section and is subject to enforcement under section 94.518.

Sec. 94.517. Responsibility for maintenance of permanent BMPs.

(a) The holder must maintain the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as an owners association, a new property owner or lessee, a district, or the city) or the ownership of the property is transferred to the entity. The other entity will then be responsible for maintenance until another entity assumes the obligations in writing or ownership is transferred, with notice to the planning director. A copy of the documents comprising the transfer of responsibility or ownership must be filed with the planning director within 30 days after the transfer.

(b) The holder must submit a maintenance report to the planning director between November 1st and December 31st of each year. No fee will be charged by the city for the filing or review of the report, but a late fee set by the city council will be charged to a holder if a submission is not made by the due date. The report must be prepared by a Texas-licensed engineer and must describe the following:

(1) An assessment of the condition of the BMP, current as of the date of the report.

(2) A history of maintenance activities performed on the BMP during the past year.

(3) The professional opinion of the engineer regarding the current functionality of the BMP and its ability to provide total suspended solids removal in accordance with the original design specifications for the BMP.

(4) Recommendations of the engineer regarding the need for maintenance or modification of the BMP to meet original design specifications.

(c) If an entity responsible for maintaining a permanent BMP fails to properly maintain the BMP, the planning director will send a written notice to the entity to correct the problem within a reasonable time set by the planning director, not less than five nor more than 30 days from the entity's receipt of the notice. If the entity fails to comply with the notice, the planning director may initiate one or more of the following:

(1) Enforcement action against the entity through the city attorney.

(2) Proper maintenance of the BMP by use of city forces or a private contractor.

(3) Withholding of further permits, inspections or approvals for any other development at the site served by the BMP.

(d) If the planning director undertakes maintenance of a BMP under subdivision (c)(2), the finance director will send a statement of the costs for the maintenance, including an administrative fee set by the city council, to the entity. If the full amount of the statement is not paid to the city within 30 days of the issuance of the statement, the finance director will certify the charges as a lien against the property on which the BMP is located, and the city attorney may initiate legal action to collect the unpaid amount from the entity.

Sec. 94.518. Enforcement.

(a) Enforcement activities include informal contacts with individuals to advise them of requirements, the issuance of verbal warnings, written warnings, and municipal court citations, formal court action, and billing and collection. Inspectors and technicians of the planning and development services, building inspections, public works and environment and engineering departments are authorized to issue municipal court citations for violations of this article.

(b) The city attorney is authorized to prosecute violations of this article in the municipal court where jurisdiction lies for the action. For the purpose of defining the jurisdiction of the municipal court, and on the basis of the significant threat to public health, safety and welfare posed by potential pollution of the Edwards Aquifer, violations of this article are declared to be nuisances, and are prohibited within the city and within 5,000 feet of the city.

(c) The city attorney is authorized to file and prosecute an injunctive action, a collection action, or another appropriate action in a court of competent jurisdiction to enforce the provisions of this article.

(d) The initiation of one form of enforcement action by the city attorney will not preclude the city attorney from initiating any other form of enforcement action.

Sec. 94.519 ~~8~~ – 94.523. Reserved.

DIVISION 3. STANDARDS AND WATER QUALITY ZONES

Sec. 94.524. Impervious cover limitation.

(a) The total of all impervious cover at a site in the recharge zone is limited to the following percentages of the gross area of the site based on the size of the site:

Size of Site	**Impervious Cover Limit**
Up to and including three acres	40%
More than three acres and less than five acres	30%
Five acres or more	20%

(b) The area of impervious cover at a site will be the area of the impermeable surface measured horizontally. The area of impervious cover for a surface may be reduced based on data acceptable to the engineering director showing that the surface has a significant degree of permeability.

(c) A person may not submit a series of applications for approval of aquifer protection plans for distinct sites on a single tract of property for the purpose of increasing the impervious cover limit on the property. If the planning director determines that an application involves a violation of this subsection, the director will apply the impervious cover limitation for the entire tract of property, including those portions already developed, to the application.

Sec. 94.525. Requirements and standards for construction, maintenance and operation of BMPs.

(a) If impervious cover at the site of a development in the recharge zone equals or exceeds 15 percent on the approved aquifer protection plan for the development, permanent BMPs must be installed in accordance with the approved aquifer protection plan in order to mitigate the water quality impacts of the development. The permanent BMPs must limit the increase in the total suspended solids load in drainage from the site that results from the development to no more than 20 percent above that which would occur from natural drainage from the site.

(b) All temporary and permanent BMPs required in the approved aquifer protection plan must be constructed, operated and maintained in accordance with the standards, criteria and requirements in the TNRCC Edwards Aquifer rules and the TNRCC BMP guidance manual.

Sec. 94.526. Requirements for developments not covered by an aquifer protection plan.

(a) Temporary erosion and sedimentation controls are required to be installed and maintained for the following activities that are not covered by an aquifer protection plan, if they occur in the recharge zone or in an area of the transition zone that drains across the recharge zone:

(1) The construction or expansion of one single family home or accessory structure on a legally platted lot, or on an unsubdivided tract of land at least two acres in size, for which a legal description was contained in a deed recorded before March 1, 2000.

(2) The installation or maintenance of utility lines by a governmental entity.

(3) Landscaping activities involving more than 5,000 square feet of area of landscape installation.

(4) The resurfacing of existing paved roads, parking lots, sidewalks, or other development-related impervious surfaces.

(b) Temporary erosion and sedimentation controls are required to be installed and maintained for a development that is not required to be covered by an aquifer protection plan, if the activities occur in the recharge zone or in an area of the transition zone that drains across the recharge zone.

(c) All temporary erosion and sedimentation controls required under this section must:

(1) meet the applicable standards and requirements of the TNRCC Edwards Aquifer rules and the TNRCC BMP guidance manual;

(2) be installed prior to commencing construction;

(3) be maintained during construction; and

(4) not be removed until vegetation is established and the construction area is stabilized.

(d) The engineering director will monitor stormwater discharges from these activities to evaluate the adequacy of the temporary erosion and sedimentation control measures. The engineering director may require the person performing the activity to use additional controls if the director determines that the controls used by the person are inadequate to protect water quality.

Sec. 94.527. Water quality zones.

(a) A water quality zone is established along each minor waterway, intermediate waterway, and major waterway in the recharge zone. The area of the zone is determined in one of the following ways:

(1) If the waterway has an officially mapped 100-year floodplain, the water quality zone is the area of the 100-year floodplain based on the latest Federal Emergency Management Agency maps adopted by the local regulatory authority, subject to site-specific interpretation in a manner acceptable to the engineering director.

(2) If the waterway does not have an officially mapped 100-year floodplain, the water quality zone is either:

(A) 50 feet extending out on each side of the centerline of a minor waterway, 100 feet extending out on each side of the centerline of an intermediate waterway, and 200 feet extending out on each side of the centerline of a major waterway; or

(B) the area of the 100-year floodplain as calculated and determined by a Texas-licensed engineer, at the developer's option and expense, in accordance with engineering standards acceptable to the engineering director.

(b) No development~~,~~ or impervious cover is allowed within a water quality zone, except for the following:

(1) Arterial, residential and collector street crossings in accordance with the following:

(A) Major waterways may be crossed by arterial streets that are a distance of at least 2,000 feet horizontally from the nearest adjacent crossing of the waterway by an arterial or collector street.

(B) Intermediate waterways may be crossed by arterial and collector streets that are a distance of at least 2,000 feet horizontally from the nearest adjacent crossing of the waterway by an arterial or collector street.

(C) Minor waterways may be crossed by arterial, collector and residential streets that are a distance of at least 1,000 feet horizontally from the nearest adjacent crossing of the waterway by an arterial, collector or residential street.

(D) A waterway, whether major, intermediate or minor, may be crossed by one collector or residential street regardless of the distance from the nearest crossing of the waterway by an existing arterial, collector or residential street, if the crossing will provide the only access to a public road or street for a portion of the tract of land on which the new street is proposed.

(2) Utility line crossings that are in compliance with all city and TNRCC requirements.

(3) Fences that do not obstruct surface water flows.

(4) Trails and related facilities, other than buildings, for walking, running, and non-motorized biking.

Sec. 94.528. Buffer zones.

(a) A buffer zone is established along each minor waterway, intermediate waterway and major waterway in the recharge zone. The buffer zone is 100 feet wide, measured horizontally, along each side of the water quality zone for each minor, intermediate and major waterway.

(b) Impervious cover is limited to 10 ~~20~~% of the area of a site within a buffer zone, unless the area has a slope of 20% or more. If an applicant obtains approval for a mitigation plan in accordance with section 94.511(g) and subsection (e) of this section, impervious cover within the buffer zone on a site, other than in an area with a slope of 20% or more, may be increased to 20%.

(c) For development in buffer zones adjacent to a 100-year floodplain that is 50 feet or less in width next to a floodway:

(1) The 10% limit on impervious cover is absolute;

(2) All drainage from impervious cover in such areas must be directed away from the waterway; and

(3) A mitigation plan for the drainage, prepared in accordance with section 94.511(g) and subsection (e) of this section, must be submitted for approval.

(d) In a portion of a buffer zone that has a slope of 20% or more, no impervious cover is allowed unless the applicant obtains approval for a mitigation plan in accordance with section 94.511(g) and subsection (e) of this section, in which event impervious cover is limited to 10%.

(e) A mitigation plan may consist of landscaping practices and features that perform an active filtration function for runoff from improvements, or BMPs, or both. To be approved, a mitigation plan must demonstrate to the satisfaction of the engineering director that the mitigation measures are designed, and will function, in a manner that provides for removal of contaminants from runoff from the site to the same extent as, or to a greater extent than, the installation and maintenance of a native grass surface within the entire width of the buffer zone.

Sec. 94.529 ~~31~~. Sensitive feature protection zones.

(a) A sensitive feature protection zone is established around each sensitive feature in the recharge zone. Unless an applicant submits an enhanced geologic assessment of a feature in accordance with subsection 94.511(e), or enhanced topographic information in accordance with subsection (c) of this section, the area of the zones is as follows (all measurements are to be made horizontally):

(1) Around a minor recharge feature, the zone extends 50 feet around the perimeter of the feature, and an additional 25 feet on the upstream side of the feature.

(2) Around a moderate recharge feature, the zone extends 100 feet around the perimeter of the feature, and an additional 50 feet on the upstream side of the feature.

(3) Around a major recharge feature, the zone extends 200 feet around the perimeter of the feature, and an additional 100 feet on the upstream side of the feature.

(b) If an applicant obtains the planning director's approval of an enhanced geologic assessment for a feature in accordance with section 94.511(e), the area of the sensitive feature protection zone for a feature is the area identified by the assessment as contributing significantly to recharge through the feature.

(c) If an applicant submits enhanced topographic information for a site, with contour intervals of two feet or less, the sensitive feature protection zone is the area within the following distance of a sensitive feature that is identified on the enhanced topographic survey as draining towards the feature:

(1) For a minor recharge feature, 75 feet.

(2) For a moderate recharge feature, 150 feet.

(3) For a major recharge feature, 300 feet.

(d) No development or impervious cover is allowed within a sensitive feature protection zone, except for the following:

(1) Fences that do not obstruct surface water flows.

(2) Trails and other facilities, other than buildings, for walking, running, or non-motorized biking.

Sec. 94.530 ~~2~~. Clustering incentives, transfer of development rights, and parkland credits.

(a) Clustering incentives. The clustering of development in uplands zones, and away from water quality zones, buffer zones, and sensitive recharge features is encouraged. The provisions of this section are intended to provide incentives for compact, clustered development.

(b) On-site incentives.

(1) Land included in water quality zones, buffer zones, and sensitive feature protection zones may be used in the calculation of the total impervious cover allowed on the site under section 94.524. The total allowed impervious cover on a site may be allocated by an applicant in a manner that concentrates the allowed impervious cover in one or more uplands zones on the site.

(2) For each acre of land that is otherwise permitted to be developed at the impervious cover limits set under sections 94.524 and 94.528, and is permanently set aside in its natural condition as open space, the total impervious cover may be transferred to one or more uplands zones and may be increased by a bonus of 7,000 square feet, if the planning director finds that setting aside the land achieves one or more of the following water quality protection results:

(A) It removes all or a portion of the allowed development out of a buffer zone.

(B) It increases the effective width of a buffer zone.

(C) It increases the area of a sensitive feature protection zone.

(D) It provides setbacks along smaller drainageways that drain areas of less than 50 acres and would otherwise not be protected.

(3) Land set aside under this subsection must be permanently protected and maintained as open space in a manner acceptable to the city attorney. The land must either be:

(A) Dedicated to the city or the public as permanent open space;

(B) Held in private ownership and permanently protected by a conservation easement or similar mechanism in favor of the city, another government agency, or a non-profit conservation organization approved by the planning director; or

(C) Deeded to a government agency or a non-profit conservation organization approved by the planning director as permanent open space.

(4) Additional impervious cover incentives may be granted by the commission, upon the recommendation of the planning director and engineering director, if the applicant proposes to use innovative BMPs or water quality protection measures that are in addition to or exceed those called for in this article. No incentive will be granted unless the applicant provides credible scientific data that the proposed BMP or measure will significantly improve the quality of water leaving developed areas of the site. The engineering director will report to the commission on the significance of the measure and its probable impact on water quality protection on the site. The commission will have the discretion to grant an impervious cover incentive, up to the limits set elsewhere in this subsection, that is appropriate for the measures being proposed.

(5) The total impervious cover allowed on a site, including all incentives granted under this subsection, must not exceed 30% of the gross area of the site.

(c) Off-site transfers.

(1) For each acre of land in the recharge zone located off of the site of a development that is otherwise permitted to be developed under the provisions of this article and is instead permanently set aside in its natural condition as open space, the total impervious cover may be transferred from that site to one or more uplands zones on a receiving site, and may be increased by a bonus of 3,000 square feet, if the planning director finds that setting aside the land meets one or more of the criteria in subsection (b)(2) above.

(2) Land set aside under this subsection must be permanently protected as open space in a manner acceptable to the city attorney as described in (b)(3) above.

(3) Off-site transfers of impervious cover and associated bonus provisions are subject to approval by the commission. The planning director will keep a record of each off-site transfer, including documentation on both the sending and receiving sites and the total amount of the impervious cover bonus involved in each transfer.

(4) The total development allowed on a site, including all incentives granted under this subsection, may not exceed a 50% bonus to the impervious cover limits set in section 94.524.

(d) Transfer of development rights. The transfer of development rights from a site located in the recharge zone to a receiving site located outside of the recharge zone is encouraged. The following provisions are intended to provide incentives for the transfer of development rights.

(1) The allowance for impervious cover under the provisions of this article for a site located in the recharge zone may be transferred in the form of a residential unit bonus to a receiving site inside the city limits that is appropriately zoned and is not located on the recharge zone. The receiving site may be granted additional residential units to be added to the total number of units that would otherwise be allowed within the zoning district of the receiving site. For each 5,000 square feet of impervious cover that could be legally constructed in the sending site, but is instead transferred to the receiving site, the following additional number of residential units may be constructed on the receiving site:

(A) Two single family homes, duplexes or townhouses, or

(B) Three apartment units.

(2) The commission and the city council must approve the transfer to the receiving site following the process described in Chapter 114 for a zoning change, including all notification and public hearing procedures.

(3) The total increase in residential density allowed on the receiving site must not exceed 25% of the density otherwise allowed on the receiving site.

(e) Parkland dedication credit. Land included in water quality zones, buffer zones, and sensitive feature protection zones may be used to meet up to 75% of the parkland dedication requirements for sites that are being platted in accordance with chapter 110, under the following circumstances:

(1) The commission, after receiving the recommendation of the parks and recreation director, must find that the dedication of the land as parkland is in the public interest;

(2) Parkland dedicated under this subsection must be dedicated in accordance with chapter 110, and must be designated as both parkland and permanent open space; and

(3) Only minimal trail improvements and low-impact recreational uses that are consistent with the water quality protection function of the zones will be allowed in areas that are dedicated as parkland and open space under this provision.

Fees:

Description	City Code Ref.	Amount
Review of application for exemption determination	Section 94.510(b)	$25.00
Review of aquifer protection plan	Section 94.511(h)	$100.00/acre; $500.00 min.; $7,500 max.
Review of short-form aquifer protection plan (transition zone)	Section 94.511(c)	$250.00
Review of geologic assessment - excavation	Section 94.515(a)	$50.00
Late fee-Late submission of annual BMP maintenance report	Section 94.517(b)	$250.00
Administrative fee—City maintenance of BMP	Section 94.517(d)	$250.00